

| 2019 | Sexually Transmitted Infections Data Brief |



Key Findings from recent STI Data:

A note on data in this report: The processing of STI data records may result in a delay in public data availability. Published STI data may change with further follow-up and investigation.

- In 2018, the most commonly-occurring sexually-transmitted infection in Guilford County was chlamydia, followed by gonorrhea with 5,162 and 1,965 new cases respectively.
- HIV Infection incidence rates declined in 2017 and 2018, but the county still has higher rates than most peer counties and the state.
- New cases are predominantly African American, non-Hispanic males between the ages of 20 and 29.
- Primary and secondary syphilis incidence rates declined from 23.2 cases per 100,000 in 2015 to 15.9 in 2018.
- Chlamydia incidence rates continued an upward trend, reaching a high of 969.2 cases per 100,000 in 2018.
- Gonorrhea rates climbed to 368.5 per 100,000, a level not seen since 2007.
- Increasing rates of chlamydia, gonorrhea and syphilis are consistent with state and national trends.

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Sexually Transmitted Infections, Cases and Rates per 100,000 Guilford County, 2014-2018

Reportable Disease	2014		2015		2016		2017		2018	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Chlamydia	3,563	694.6	4,138	799.5	4,102	786.8	4,731	897.8	5,162	968.1
Gonorrhea	1,271	248.0	1,656	320.0	1,776	340.7	1,713	325.1	1,965	368.5
HIV Infection (HIV & AIDS)	96	18.7	122	23.6	139	26.7	127	24.1	114	21.4*
Syphilis (Primary & Secondary - P&S)	43	8.4	120	23.2	98	18.8	111	21.1	85	15.9
Syphilis (P&S and Early Latent)	90	17.6	199	38.4	176	33.8	178	33.8	148	27.8
Pelvic Inflammatory Disease (PID)	2	0.4	3	0.6	1	0.2	3	0.6	4	0.8
Non-Gonococcal Urethritis (NGU)	133	26.0	247	47.7	190	36.4	146	27.7	276	51.8
Hepatitis A	4	0.8	0	0.0	5	1.0	2	0.4	2	0.4
Hepatitis B (acute)	7	1.4	2	0.4	7	1.3	13	2.5	13	2.4
Hepatitis B (chronic carrier)	71	13.9	47	9.1	120	23.0	77	14.6	29	5.4
Hepatitis C (acute)	7	1.4	4	0.8	4	0.8	7	1.3	7	1.3
Population	512,119		517,600		521,330		526,953		533,213**	

Source: NC Electronic Disease Surveillance System (NC EDSS).

*Preliminary data for HIV Infection cases from the 2018 NC HIV/STD Quarterly Surveillance Report, NCDHHS Communicable Disease Branch.

**2018 Population estimate obtained from the NC Office of Budget and Management.

Sexually Transmitted Infections

Chlamydia is the most common sexually transmitted infection. Chlamydia can infect both men and women. It can cause serious, permanent damage to a woman’s reproductive system, which can make future pregnancies impossible. Chlamydia can also cause a potentially fatal ectopic pregnancy, which occurs outside the womb.

Gonorrhea is a common infection transmitted by sexual contact, characterized by inflammation of the mucous membranes of the genital and urinary tracts, an acute discharge containing pus, and painful urination, especially in men. Women often have few or no symptoms, but pregnant women can transmit the infection to their baby during delivery, causing serious health problems for the baby.

Human Immunodeficiency Virus (HIV) is a virus that attacks the body’s immune system, making the person more likely to get other infections or infection-related cancers. If untreated, HIV can lead to **Acquired Immunodeficiency Syndrome (AIDS)**, a potentially fatal condition.

Syphilis is a sexually transmitted infection that can cause serious health problems if not treated. Syphilis is divided into stages—primary, secondary and latent—with different signs and symptoms associated with each stage.

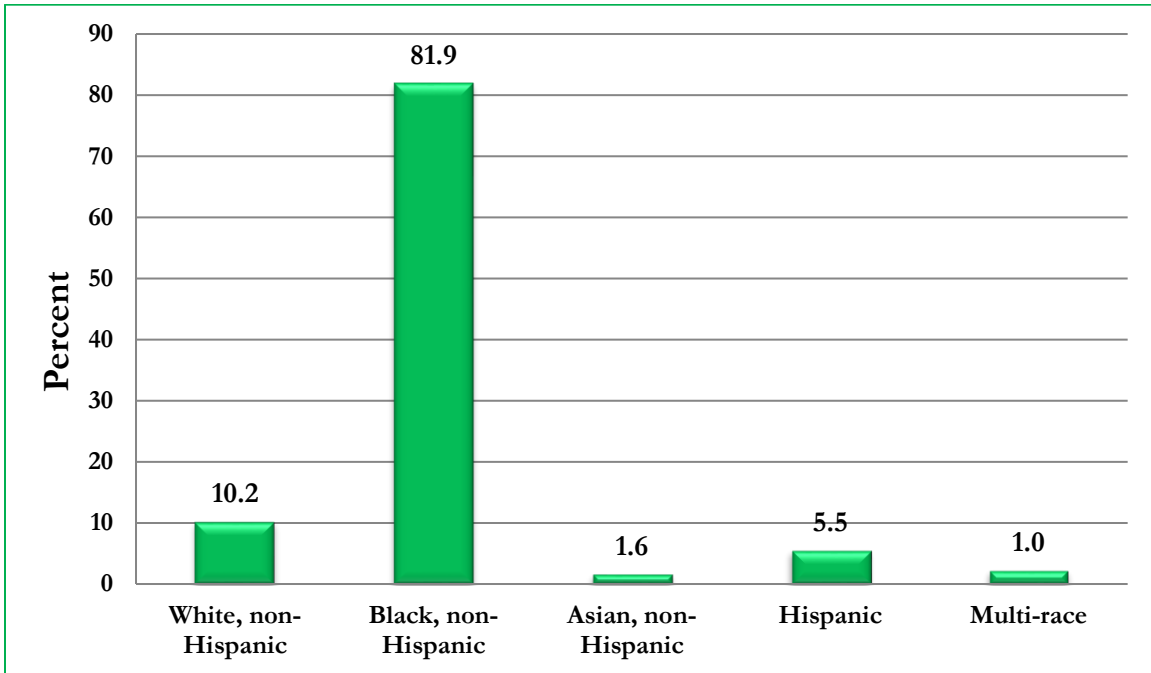
Non-Gonococcal Urethritis (NGU) is inflammation of the urethra not caused by gonorrhea. NGU can result from various infectious and non-infectious conditions.

Pelvic Inflammatory Disease (PID) is an infection of female reproductive organs. It is a complication often caused by some STIs such as chlamydia and gonorrhea. Other infections that are not sexually transmitted can also cause PID.

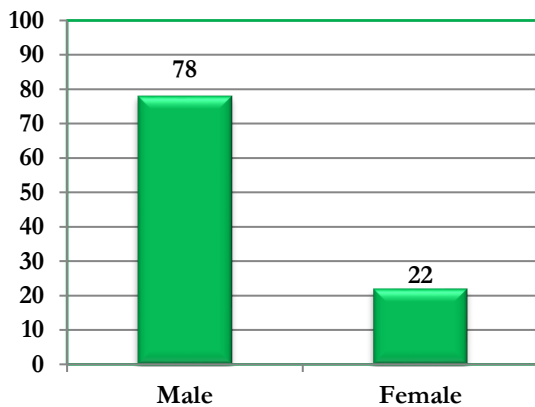
Hepatitis A, Hepatitis B and Hepatitis C are potentially serious liver infections caused by three different viruses. Hepatitis A is usually transmitted by ingestion of contaminated food or water, while Hepatitis B and C are typically transmitted through contact with infectious body fluids.

Sexually Transmitted Infections: HIV Infection

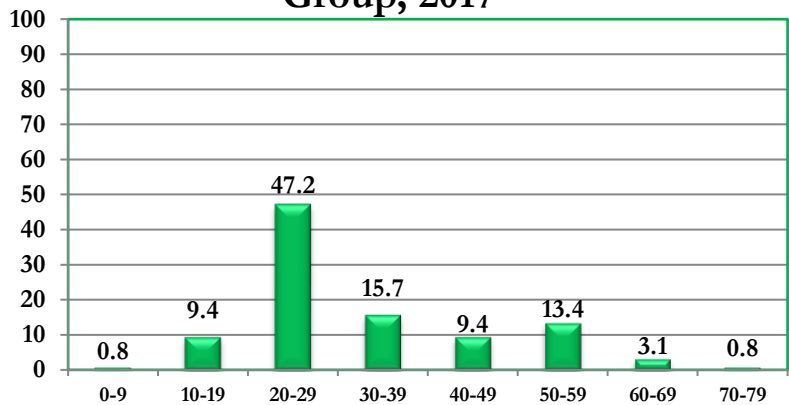
Characteristics of Guilford County HIV Infection Cases
 Percentage of Cases by Race and Ethnicity, 2017
 Number of Cases = 127



Percent of HIV Infection by Sex, 2017



Percent of HIV Infection by Age Group, 2017

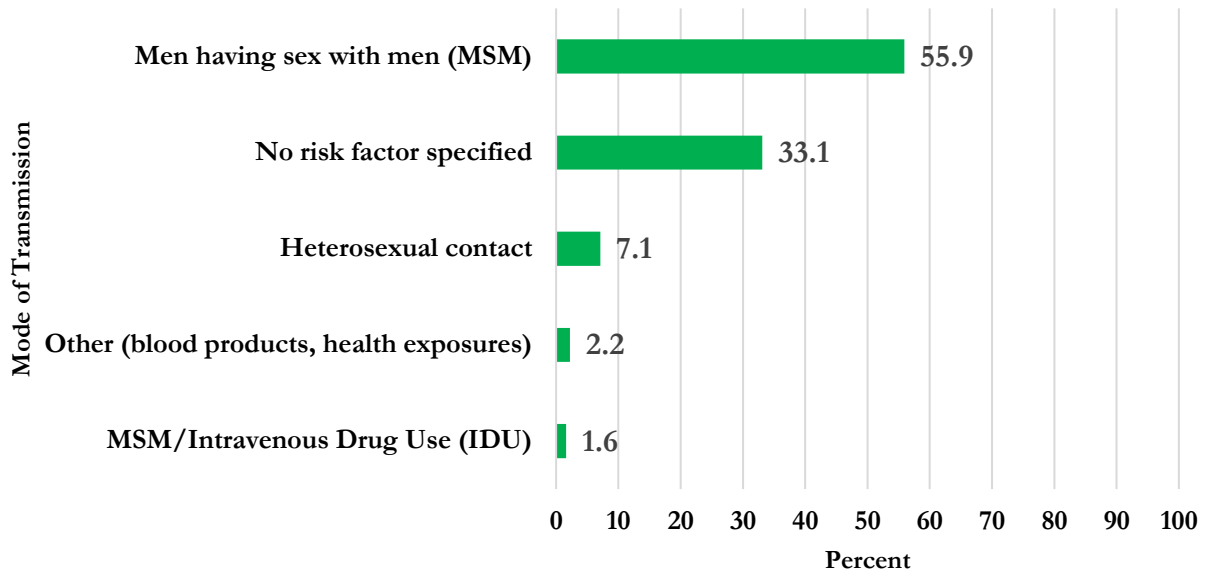


Source: Communicable Disease Branch, NC Division of Public Health, NCDHHS.

- Guilford County's HIV infection rate remains higher than that of North Carolina overall. Rates are highest for African American non-Hispanics, males and young adults between the ages of 20 to 29.
- HIV mortality rates declined dramatically between 1995 and 1997 and have remained low since that time. The difference between the new case rate and the mortality rate means that the number of residents living with HIV infection continues to grow.

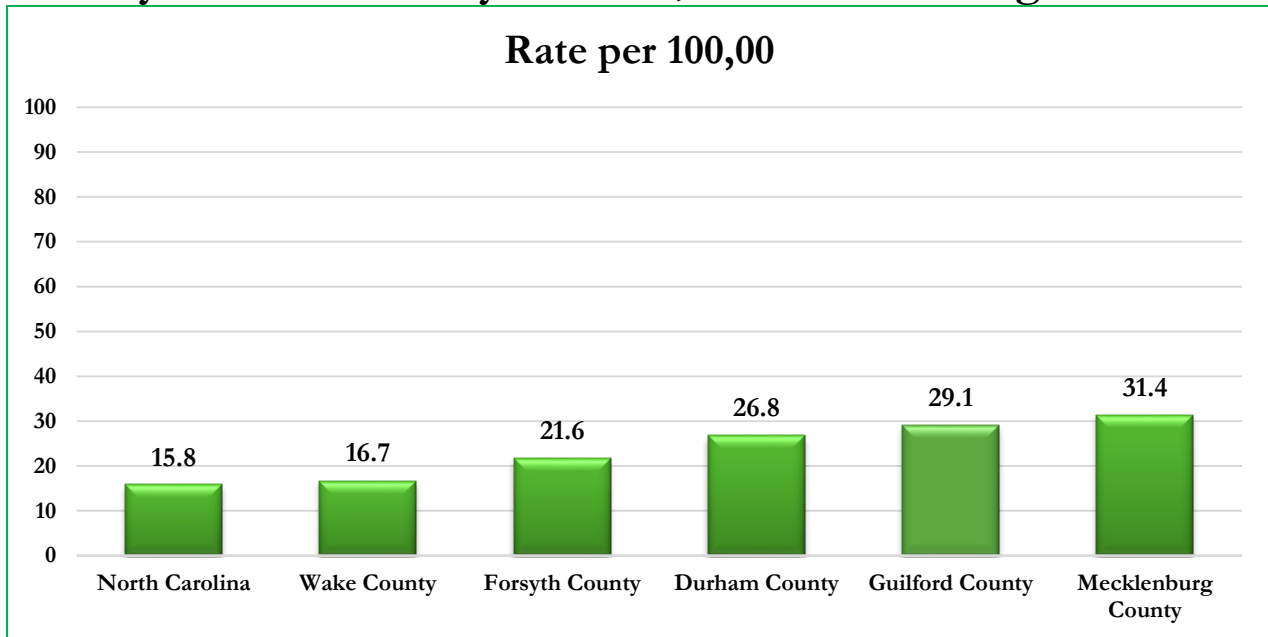
HIV Infection Mode of Transmission, 2017

Number of Cases = 127



Source: North Carolina HIV/STD Quarterly Surveillance Report, Annual Surveillance Report, HIV/STD Surveillance Unit.

HIV Infection New Case among Adults and Adolescents, by Selected County and NC, 2015-2017 Average Rate

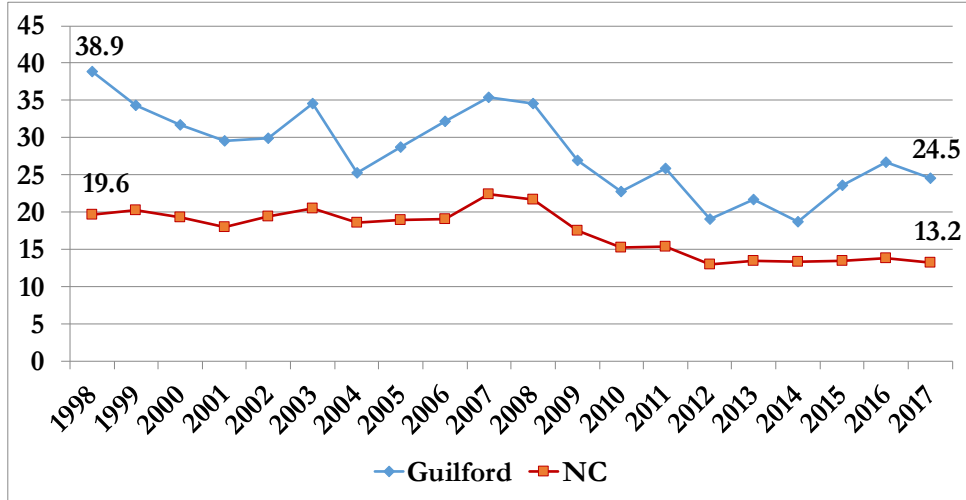


Source: 2017 North Carolina HIV/STD/Hepatitis Surveillance Report, NC DHHS.

Note: Includes all newly reported HIV infected individuals, regardless of the stage of infection (HIV or AIDS).

Trends in HIV Infection Incidence Rates Guilford County and NC, 1998-2017

Rate per 100,000

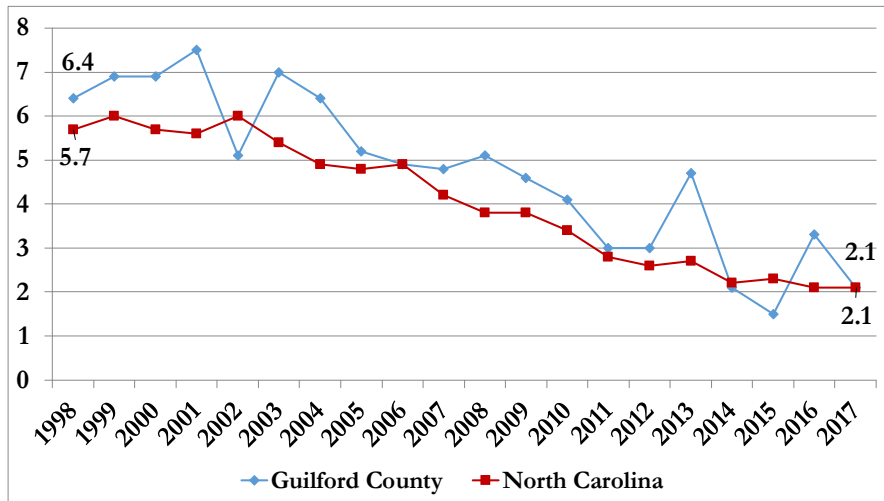


Source: HIV/STD Prevention & Care Branch, Division of Public Health, NC DHHS.

Note: HIV Infection includes all new cases of HIV or AIDS.

Trends in HIV Infection Mortality Rates Guilford County and NC, 1998-2017

Rate per 100,000

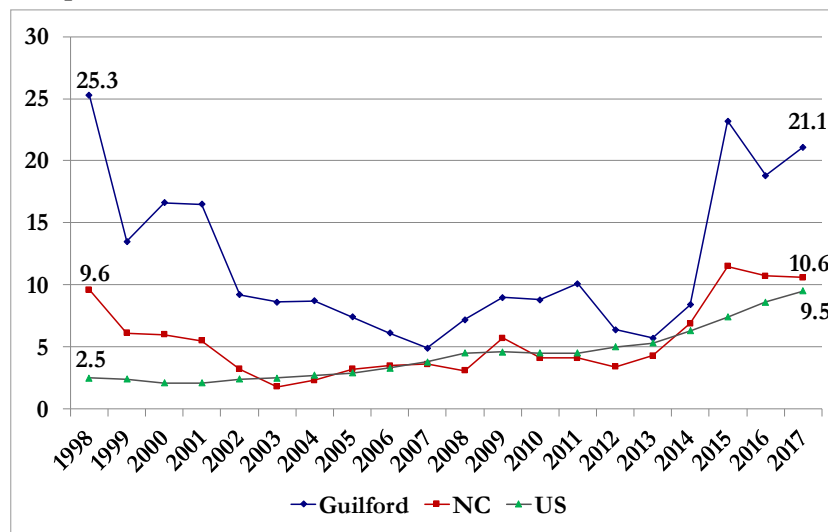


Source: NC Center for Health Statistics.

Note: HIV Infection includes all new cases of HIV and AIDS.

Trends in Primary and Secondary Syphilis Rates Guilford County, NC and US, 1998-2017

Rate per 100,000



Source: NC DHHS Communicable Disease Control Branch; NC Electronic Disease Surveillance System (NCEDSS).

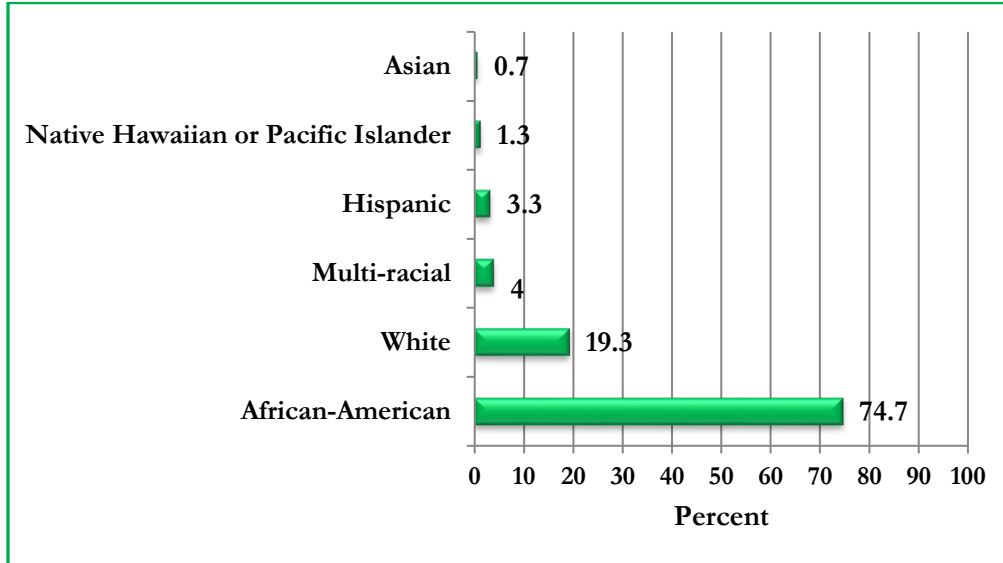
Primary, Secondary and Early Latent Syphilis Rates per 100,000 By Selected Counties and NC, 2013-2017

Geographic Area	2013	2014	2015	2016	2017
Cumberland	14.4	23.0	35.8	27.6	24.0
Durham	16.0	24.8	44.5	36.3	38.8
Forsyth	14.1	13.7	22.0	19.9	20.7
Guilford	11.4	17.6	38.4	33.8	33.8
Mecklenburg	15.0	26.6	39.2	37.6	40.6
Wake	11.3	17.7	24.2	22.1	22.4
North Carolina	7.0	11.2	18.6	16.2	17.9

Source: North Carolina HIV/STD Quarterly Surveillance Report, Annual Surveillance Report; NCDHHS Communicable Disease Branch.

Sexually Transmitted Infections: Syphilis

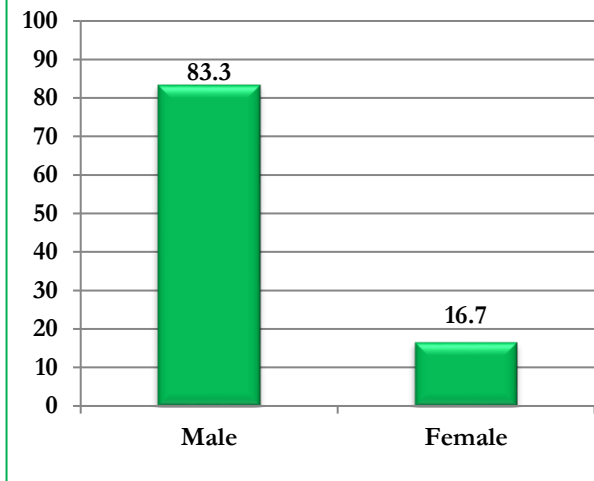
Characteristics of Guilford County Syphilis Cases, 2018 Percentage of Cases by Race and Ethnicity (Primary, Secondary and Early Latent Syphilis) Number of Cases = 150



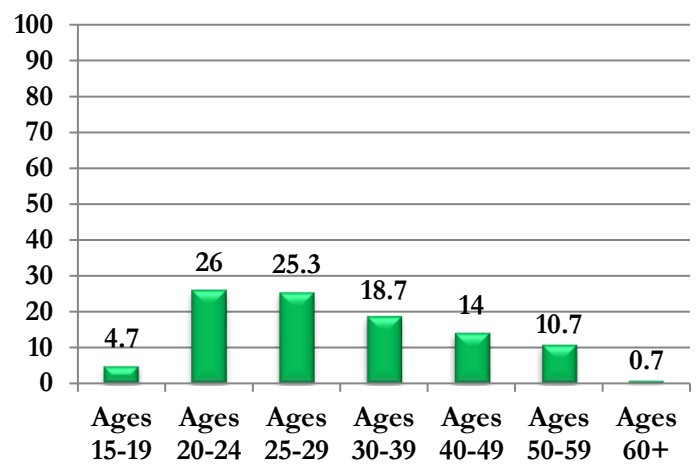
Source: Communicable Disease Branch, NC Division of Public Health, NCDHHS.

Notes: Hispanics can be of any race; percentages do not add to 100%.

Percent of Syphilis Cases by Sex, 2018



Percent of Syphilis Cases by Age Group, 2018



Source: NC DHHS, Communicable Disease Branch, NC Electronic Disease Surveillance System (NCEDSS).

- A large racial disparity exists in syphilis incidence, with African-Americans making up 75% of all cases.
- 83% of cases are men and half of all cases occur among persons ages 20-29.

Sexually Transmitted Infections: Chlamydia

Characteristics of Guilford County Chlamydia Cases and Rates by Race and Hispanic Status, 2016-2018

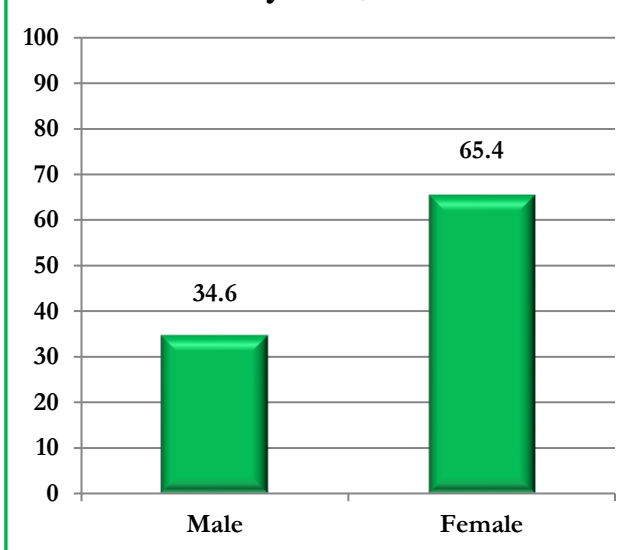
Race or Ethnicity Classification	2016		2017		2018	
	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases
American Indian	8	0.2%	3	0.01%	12	0.2%
Asian	56	1.4%	48	1.0%	65	1.3%
African-American	2,534	61.8%	2,952	62.4%	3,249	62.9.0%
Hawaiian/Pacific	4	0.1%	3	0.1%	8	0.2%
White	467	11.4%	579	12.2%	696	13.5%
Other	105	2.6%	129	2.7%	155	3.0%
Unknown	914	22.3%	929	19.6%	946	18.3%
Multi-Racial	10	0.24%	11	0.2%	24	0.5%
Missing	4	0.10%	77	1.6%	7	0.1
Race Total	4,102	100.0%	4,731	100%	5,162	100%
Hispanic*	153	3.7%	181	3.8%	237	4.6%

*Hispanics can be of any race.

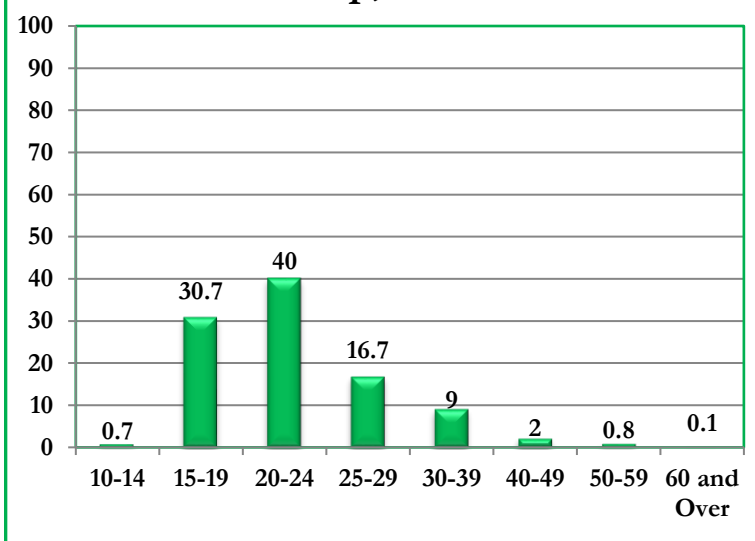
Source: NC Electronic Disease Surveillance System (NCEDSS).

- The highest chlamydia incidence rates are among African-American residents, with large disparities compared to Whites and other race/ethnic groups.
- The age groups with the highest rates of chlamydia are ages 20-24, followed by ages 15-19 and ages 25-29.
- Two-thirds of chlamydia cases are among females. Chlamydia cases are diagnosed largely as a result of screening, and women are more likely to have screening tests.

Percent of Chlamydia Cases by Sex, 2018



Percent of Chlamydia by Age Group, 2018



Source: NC Electronic Disease Surveillance System (NCEDSS).

Sexually Transmitted Infections: Gonorrhea

Characteristics of Guilford County Gonorrhea Cases and Percentages by Race and Hispanic Status, 2016-2018

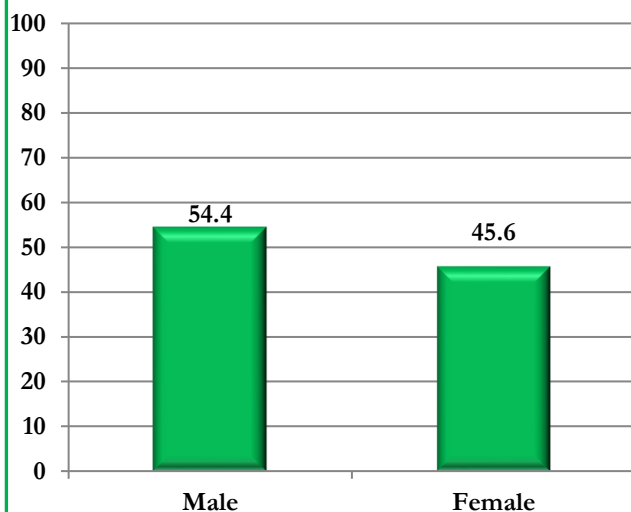
Race or Ethnicity	2016		2017		2018	
	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases
American Indian	4	0.2%	1	0.1%	6	0.3%
Asian	4	0.2%	12	0.7%	9	0.5%
African-American	1,207	73.5%	1,258	73.4%	1,475	75.1%
White	156	9.5%	2	0.1%	170	8.7%
Other	16	1.0%	164	9.6%	24	1.2%
Unknown	243	14.8%	222	13.0%	271	13.8%
Multi-Racial	6	0.4%	4	0.2%	7	0.4%
Race Total	1,642	100.0%	1,713	100.0%	1,965	100%
Hispanic*	31	1.9%	44	2.6%	33	1.7%

*Hispanics can be of any race.

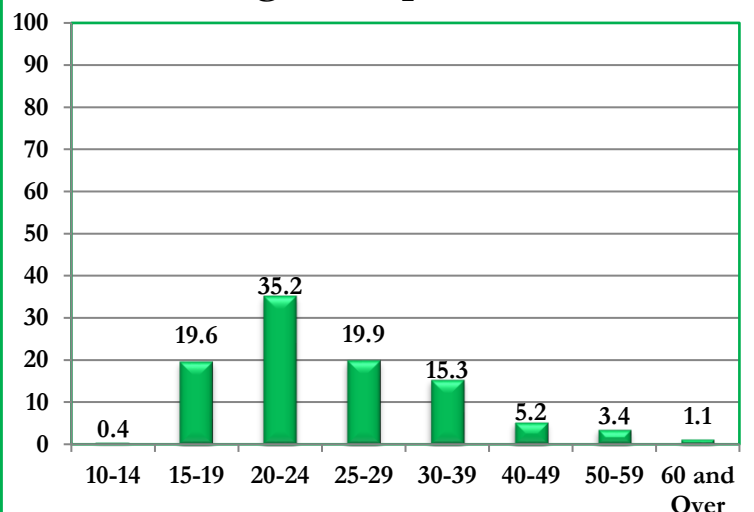
Source: NC Electronic Disease Surveillance System (NCEDSS).

- The highest gonorrhea incidence rates are among African-American residents, with large disparities compared to Whites and other race/ethnic groups.
- The age groups with the highest rates of gonorrhea are ages 20-24, followed by ages 25-29 and ages 15-19.

Percent of Gonorrhea Cases by Sex, 2018



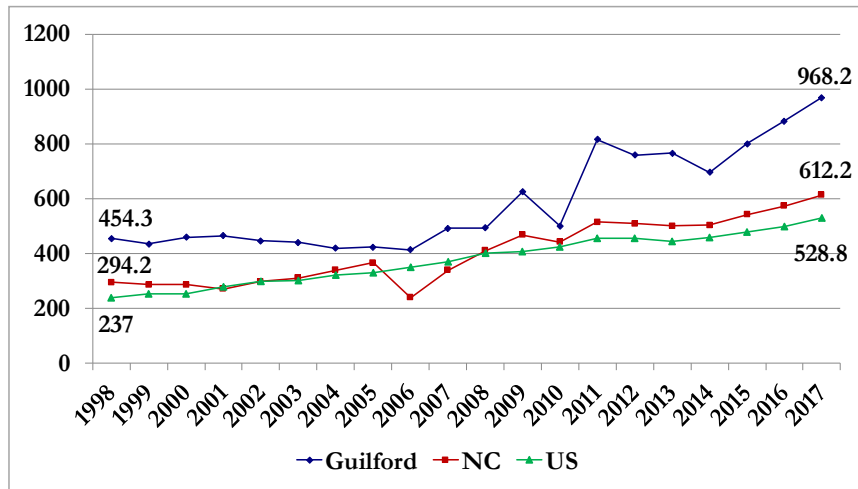
Percent of Gonorrhea Cases by Age Group, 2018



Source: NC Electronic Disease Surveillance System (NCEDSS).

Trends in Chlamydia Incidence Rates Guilford County, NC and US, 1998-2017

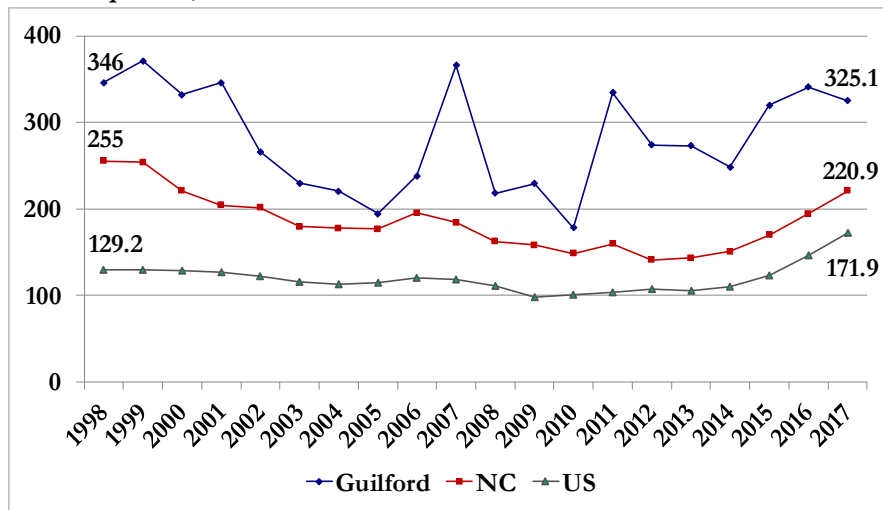
Rate per 100,000



Source: General Communicable Disease Control Branch; Division of Public Health, NC DHHS.

Trends in Gonorrhea Incidence Rates Guilford County, NC and US, 1998-2017

Rate per 100,000



Source: North Carolina Electronic Disease Surveillance System (NCEdSS); NC DHHS, Communicable Disease Control Branch.

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For more information about Guilford County health statistics, visit
<https://www.guilfordcountync.gov/our-county/human-services/health-department/health-statistics>